

T-6825-65

ACCESSION NR. AP5007532

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: IE, DP

NO REF Sov: 001

OTHER: 001

Card 2/2

1917. SHAPING THE SURFACE OF MILLED PEAT FIELDS. Gorbutzky, O.D.,
Vilnius, Lithuania, 1955, 1535, (2).
[Handwritten note: 3]
1918. SHAPING THE SURFACE OF MILLED PEAT FIELDS. Gorbutzky, O.D.,
Vilnius, Lithuania, 1955, 1536, (3).
Experiences in leveling the surfaces of milled peat
in Mono E.S. Trans. 6107. Experiences in leveling the surfaces of milled peat
fields connected with the use of peat piling machines are described; and
results are recorded which show that such fields lead to an increased number
of cycles, and larger yields and seasonal yields of milled peat. (L).

RYSIN, V.I., inzh.; MEKLER, Z.M., inzh.; KUNITSKIY, K.P., kand.tekhn.
nauk; ZAYTSEV, V.F., inzh.; SKOMOROKHOV, B.A., inzh.

Exchange of experience between the enterprises of economic
councils. Torf. prom. 38 no.5:31-34 '61. (MIRA 14:10)

1. Torfopredpriyatiye Radovitskiy mokh Mosoblsovarkhoza
(for Rysin).
2. Predpriyatiye Pel'gorskoye Lensovmarkhoza
(for Mekler).
3. Institut torfa AN BSSR (for Kunitskiy).
4. Komsomol'skoye transportnoye upravleniye Ivanovskogo
sovarkhoza (for Zaytsev).
5. Predpriyatiye Tesovo /
Lensovmarkhoza (for Skomorokhov).
(Peat machinery)

POLYAKOV, V.F., inzh.; OBOROTISTOVA, M.L., inzh.; MEKLER, Z.M., inzh.
RYSIN, V.I., inzh.; AVTONEYEV, S.A., inzh.; POLYAKOV, V.F.,
inzh.

Exchange of experience of the enterprises of economic councils.
Torf. prom. 38 no.6:33-36 '61. (MIRA 14:9)

1. Fabrika izoplit tresta Montazhtermoizdeliya (for Polyakov).
- 2... Shaturskiy torfotrest Moskovskogo Soveta narodnogo
khozyaystva (for Oborotistova). 3. Torfopredpriyatiye
Pel'gorskoye Lensovnarkhoza (for Mekler). 4. Torfopred-
priyatiye Radovitskiy mokh Moskovskogo oblastnogo soveta
narodnogo khozyaystva (for Rysin). 5. Torfopredpriyatiye
imeni Klassona (for Avtoneyev). 6. Fabrika izoplit tresta
Montazhtermoizdeliya (for Polyakov).
(Peat machinery)

MEKLYAR, P.V.

Photochemistry

Formation of latent photographic images under diverse exposure conditions. Izsp.
nauch. fot., No. 1, 1951.

Monthly List of Russian Accessions, Library of Congress, June 1952, "UNCLASSIFIED"

MEKLYAR P. V.

238T1.1

USSR/Physics - Isophares
Photography

21 Aug 52

"The Form of the Isopaque of a Photographic
layer," P. V. Meyklyar

"DAN SSSR" Vol 85, No 6, pp 1255-8

Discusses the light-sensitivity of a photographic
layer as a function of time of illumination, in
which for a certain optimum time of illumination
the sensitivity of the layer is a max. Obtains
a new derivation of the formula relating H (magi-
tude of illumination) and t (time of illumination)

238T101

Gives a curve describing $\log H$ versus $\log t$, in
which there exists a min around $\log t$ equal to
-1. Submitted by Acad A. N. Terenin 23 Jun 52.

238T101

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001033320018-0

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R001033320018-0"

GORELIK, A.G.; MEK'NICHUK, Yu.V.

Relation between the statistical properties of a radio echo and the motions of scatterers in clouds and precipitation. Trudy TSAO no.36: 109-117 '61. (MIRA 15:6)
(Radar meteorology) (Precipitation (Meteorology))

MEKONOSHIN, N., and RUSYANTSEV, Yu.

"Aircraft Carriers of Atomic Weapons," a chapter from the book Problems
in the Utilization of Atomic Energy, the second revised edition of a collection
of articles, published in 1956, Moscow, USSR

MEKONOSHIN, N., Eng.

"Aircraft of Strategic Aviation," from the book Modern Military Technology, 1956,
page, 103.

Translation 1114585

PONOMAREV, A., general-polkovnik inzhenerno-tehnicheskoy sluzhby;
POKROVSKIY, G., prof., doktor tekhnicheskoy sluzhby;
KUVAL'DIN, A., dots., kand. tekhnicheskikh nauk inzhener-polkovnik; MOSTOVENKO, V., dots., kand. tekhnicheskikh nauk inzhener-polkovnik; GONCHAROV, M., polkovnik; TARANTSOV, A., polkovnik; VASIL'YEV, N., polkovnik; GORDEYEV, N., kapitan 1 ranga; KOZIN, K., kapitan 1 ranga; ARKHIPOV, M., dots., kand. tekhn. nauk inzhener-podpolkovnik; SEDOV, A., dots., kand. tekhn. nauk, inzhener-podpolkovnik; MELIK-PASHAYEV, N., dots., kand. tekhn. nauk, inzhener-podpolkovnik; TIKHOMIROV, Yu., dots., kand. tekhn. nauk, inzhener-podpolkovnik; PARFENOV, V., kand. tekhn. nauk, inzhener-podpolkovnik; GEORGIYEV, A., inzh.-podpolkovnik; KRUCHININ, V., inzh.-podpolkovnik; MEKONOSHIN, N., inzh.-podpolkovnik; RYKOV, S., inzh.-podpolkovnik; SURIKOV, B., inzh.-podpolkovnik; ZHUKOV, V., inzh.-mayor; NOVIKOV, M., inzh.-mayor; SUSHKOV, Yu., inzh.-kapitan; ASTASHENKOV, P.T., inzh.-podpolkovnik; VASIL'YEV, A.A., red.; KARYAKINA, M.S., tekhn. red.

[New advances in military technology for youthful readers] Mo-lodezhi o novom v voennoi tekhnike. Moskva, Izd-vo DOSAAF, 1961. 342 p. (MIRA 15:2)

(Rockets (Ordnance)) (Atomic weapons)
(Electronics in military engineering)

GUBANOV, L.Ya., inzhener; MEKRYUKOV, I.A., inzhener.

Making prestressed reinforced concrete beams with a span of 18
meters. Nev.tekh.i pered.sp.v strel. 18 no.4:6-9 Ap '56.
(Girders) (MLRA 9:7)

BOCKO, Jozef; MEKS-BURMECHA, Halina

Influence of irrigation with city sewage on the sanitary state
of the air. Zesz prob post nauk roln 47:137-147 '64

1. Institute of Soil Improvement and Grasslands, Regional Research
Center, Wroclaw.

MARCILONEK, Stanislaw; MEKS-BURMECHA, Halina

Sanitary aspects of city sewage purification in the soil. Zesz
probl post nauk roln 47:121-136 '64

1. Institute of Soil Improvement and Grasslands, Regional Research
Center, Wroclaw.

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001033320018-0

JENKINS, W.P., Captain, U.S. Army, "A History of the 1st Cavalry Division
in World War II," Fort Riley, Kansas, 1949. 12 vols. 1000 pp.
"A short history of the 1st Cavalry Division, U.S. Cavalry, 1861-1949."

-160-

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001033320018-0"

MEKSHENKOV, M.I.; ANDREYTSEV, A.P.

Method of photoelectric compensation. Biofizika 5 no. 5:616-120
'60. (MIRA 13:10)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(PHOTOELECTRIC MEASUREMENTS)

MEKSHENKOV, M.I.; ANDREYTSEV, A.P.

Universal registration device for luminescence spectrum analysis. Biofizika 6 no.5:615-619 '61. (MIRA 15:3)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(SPECTRUM ANALYSIS--EQUIPMENT AND SUPPLIES)

MEKSHENOV, M.I.

Relative effectiveness of direct and indirect action of ionizing
radiation on DNA. Radiobiologija 2 no.2:181-188 '62. (MIRA 15:4)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(DESOXYRIBONUCLEIC ACID)
(X RAYS--PHYSIOLOGICAL EFFECT)

27.12.20

34484

S/020/62/142/004/022/022

B144/B138

AUTHOR: Mekshenkov, M. I.

TITLE: Comparative efficiency of direct and indirect influences of ionizing radiation on DNA

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 142, no. 4, 1962, 944 - 947

TEXT: As published data on the relationship between direct and indirect influences (β/α) of ionizing radiation prove unreliable, this problem was here studied in x-irradiated DNA solutions of 0.007 - 100 % concentration. Direct and indirect effects were distinguished by the method originally used by N. P. Dubinin, Corresponding Member AS USSR, B. N. Sidorov, and N. N. Sokolov (Ref. 7: (a) DAN, 126, no. 1 (1959); (b) DAN, 128, no. 1, 172 (1959); (c) DAN, 126, no. 2, 400 (1959)), where KI is used as a radiation blocker. DNA samples were irradiated in a $\delta\phi$ (BF) apparatus and separated by the phenol method of Kirby modified by Georgiyev (Ref. 10: Biokhimiya, 24, no. 3, 472 (1959)). The known equation for D_{50m} (50 % dose with mixed influences) proved inadequate for calculating β/α at random concentrations, since the tests with radiation blockers

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Comparative efficiency of direct and

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revealed a strong β/α dependence on concentration. It was replaced by $D_{50m} = (D_{50d} \cdot \beta_0/\beta) / (1 + 1 - c/c \cdot \alpha/\beta)$ (2), where D_{50d} = the 50 % dose with direct influences, c = DNA concentration, and β_0 = efficiency of direct effects for 100 % concentration (dry DNA)). The applicability of (2) is limited, but the same tests permit calculation of β/α with sufficient accuracy from $\beta/\alpha = 1 - c/c \cdot \frac{\Delta\eta_d}{\Delta\eta_i}$, where $\Delta\eta_d$ = viscosity change due to direct influence; $\Delta\eta_i$ = part of effect due to I ions. It is concluded that (1) β/α is several times greater than unity in the DNA samples studied; (2) the role of the direct influence increases with increasing intrinsic viscosity; (3) the efficiency of direct effects increases sharply with decreasing concentration; this may be due to: (a) change in relative radiosensitivity of DNA molecules caused by structural rearrangement of the molecule forms A and B on change in viscosity; (b) change in rigidity of the molecule skeleton and in selfprotection effects owing to increased intermolecular reaction caused by concentration changes in the solution; (c) increased recombination effect; (4) the hitherto used equation for D_{50m} must be replaced by the one given; (5) indirect influence plays an

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Comparative efficiency of direct and

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B144/B138

important role in the effects controlling the structural viscosity of DNA solutions. There are 4 figures and 10 references: 3 Soviet and 7 non-Soviet. The four most recent references to English-language publications read as follows: F. Hutchinson, Advances in Radiobiology, 1957 p 3; Pollar, Rev. of Modern Phys., 21, no 1, 273 (1959); P. Alexander & A. Stacay, Progress Radiobiol., 1956, p. 105; P. Alexander, Advances in Radiobiol., 1957. J. A. V. Butler, F. R. S., R. H. Pain, A. B. Robins Proc. Royal Soc., B 149, no. 934 (1958). W. R. Guild, F. M. Defilippe, Biochim. et biophys. acta, 26, 241 (1957); Radiation Res., 11, 38 (1959) K. S. Kirby, Biochem. J., 66, 493 (1957); Biochem. et biophys. acta, 26, no. 6 (1959).

ASSOCIATION: Institut biologicheskoy fiziki Akademii nauk SSSR (Institute of Biological Physics of the Academy of Sciences USSR) ✓

PRESENTED: June 9, 1961, by I. I. Shmal'gauzen, Academician

SUBMITTED: June 8, 1961

Card 3/3

DVORKIN, G.A.; GOLUB, Ye.I.; GORBACHEV, L.P.; KORENEVA, L.G.;
MEKSHENKOV, M.I.

Dispersion of the optic rotation of deoxyribonucleic acid isolated
from T-2 bacteriophages. Dokl. AN SSSR 151 no.5:1211-1214 Ag
'63. (MIRA 16:9)

1. Institut biologicheskoy fiziki AN SSSR. Predstavlenie akademikom
A.N.Belozerkim.
(Bacteriophage) (Nucleic acids)

L 55916-55 EWA(1)/EWT(m)/EWA(b)-2 RM
ACCESSION NR: AP5018497

UR/0020/64/159/003/0660/0663 28

27
B

AUTHOR: Mekshenkov, M. I.

TITLE: Crystalline nature of the molecular bundle of DNA in solutions

SOURCE: AN SSSR. Doklady, v. 159, no. 3, 1964, 660-663

TOPIC TAGS: deoxyribonucleic acid, biophysics, biochemistry, intramolecular structure

Abstract: The problem as to whether ordering of DNA takes place in inter-molecular aggregates only or can also occur within molecular bundles in solution was studied by determining the double light refraction of DNA solution in a magnetic field (the MDRP effect). For DNA dissolved in 0.15 M NaCl solutions, the decrease in the magnitude of the MDRP effect in relation to the temperature of the solutions at 10 - 50° was independent of the concentration of DNA within the 0 - 0.005% concentration range - i.e., the changes in the degree of ordering ("fusion" of crystalline DNA as a result of the temperature increase) proceeded within individual molecular bundles by rearrangement of segments of the RNA molecule with respect to each other. In solutions of DNA with a low NaCl concentration (0.0015 M) no decrease in the magnitude of the MDRP effect took place in the 10-50° temperature range.

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L 55946-65
ACCESSION NR: AP5018497

The results obtained indicated that ordering ("crystallinity") may exist within isolated molecular bundles of DNA. Orig. art. has 3 graphs.

ASSOCIATION: Institut biologicheskoy fiziki Akademii nauk SSSR (Institute of Biological Physics, Academy of Sciences, SSSR)

SUBMITTED: 03 Mar 64

ENCL: 00

SUB CODE: IS, NP

NO REF Sov: 003

OTHER: 003

JPRS

Card 2/2 M G

MEKSHENOV, M.I.

Study of the structure and conformation of ribonucleic acids by
the method of birefringence in a magnetic field. Biofizika 10
no.5:747-754 '65. (MIRA 18:10)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

M.Y. CHENKOV, M.T.

Magnetic-optic effect in nucleic acid solutions. Biofizika
9 no. 1:128-131 '64.
(MIRA 17,7)

1. Institut biologicheskoy fiziki AN SSSR, Moscow.

MEKSIN, D.V. (Sinel'nikovskiy rayon, Dnepropetrovskoy oblasti) agronom.

Plant breeders. Mauka i pered. op. v sel'khoz. no.10:
18-20 0 '56. (MLRA 9:12)

(Plant breeding)

MEKSN, D.V

USSR/Cultivated Plants - Grains.

L-2

Abs Jour : Ref Zhur - Biologiya, No 16, 25 Aug 1957, 69232

Author : Meksin, D.V.

Inst :

Title : Production of Hybrid Corn Seed in the Dnepropetrovsk District.

Orig Pub : Kukuruza, 1957, No 1, 10-12

Abstract : No abstract.

Card 1/1

MEKSIN, D. (Dnepropetrovsk)

Economics of corn production. Vop.ekon.no.1:42-56 Ja '57.
(MLBA 10:3)
(Corn (Maize))

MEKSIN, D.V., agronom.

Develop collective farm trade. Nauka i pered.op.v sel'khoz. 7
no.9:64-65 S '57. (MIRA 10:10)
(Collective farms)

ZHIGAN, N.; MEKSIN, D., agronom

That's how it will be in the forthcoming seven-year plan.
Nauka i pered.op. v sel'khoz. 9 no.3:5-8 Mr '59.

(MIRA 12:5)

1. Predsedatel' kolkhoza imeni Lenina, Solonyanskogo rayona,
Dnepropetrovskoy oblasti (for Zhigan).
(Agriculture)

MEKSIN, D. V.

VOVCHENKO, Nikolay Vasil'yevich, Geroy Sotsialisticheskogo Truda;
MEKSIN, David Vladimirovich, agronom; KATSNEL'SON, S.M., red.;
SAVCHENKO, Ye.V., tekhn.red.

[Seven-year plan of the collective farm in operation] Semiletnii
plan kolkhoza v deistvii. Moskva, Izd-vo "Znanie," 1960. 39 p.
(Vsesoiuznoe obshchestvo po rasprostraneniuu politicheskikh i
nauchnykh znanii. Ser.5, Sel'skoe khoziaistvo, no.1). (MIRA 13:2)

1. Predsedatel' kolkhoza imeni Stalina Shirokovskogo rayona Dnepro-
petrovskoy oblasti (for Vovchenko).
(Shirokoye District--Agriculture)

MEKSIN, D. (Dnepropetrovsk); MILOV, M. (Dnepropetrovsk)

Economic effectiveness of the utilization of agricultural machinery
under the new conditions. Vop. ekon. no.2:64-73 F '60.

(MIRA 13:1)

(Dnepropetrovsk Province--Agricultural machinery)

MEKSIN, D. (Dnepropetrovsk)

Introducing supplementary wage payments. Vop. ekon. no.7:148-151
Jl '61. (MTPS 14:7)
(Dnepropetrovsk Province--Collective farms--Income distribution)

MEKSIN, D. (Dnepropetrovsk)

Economic efficiency of row crop rotation. Vop. ekon. no.5:29-39
My '62. (MIRA 15:6)
(Ukraine—Rotation of crops)

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001033320018-0

MEKSIN, D.V., agronom

A conflict in Kamennaya Krinitsa. Zemledelie 26 no.1:81-83
(MIRA 17:5)
Ja'64.

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001033320018-0"

MEKSIN, D.V., agronom

Practices in agronomic work. Zemledelie 27 no.1:85-90 Ja '65.
(MIRA 18:3)

MEKSIN, D.V., agronom

Pay more attention to meadows. Zemledelie 27 no.11:35-38 N '65.
(MIRA 18:10)

MEKSIN, I.M.

Blocking off trenches during electric cable repairs. Prom.energ.11
no.5:35 My '56. (MLRA 9:9)
(Electric lines--Underground)

MURKIN, I.M.

Doing line work without cutting out the power. Prom. energ. 12 no.4:
34 Ap '57. (MIRA 10:5)
(Electric lines)

MARSHAK, Ye.L.; MEKSIN, I.M.

"Repair and testing of large electrical equipment" by V.I.
Shved, V.D. Afonin, Z.I. Boldinskii. Reviewed by E.L.Marshak,
I.M. Meksin. Prom. energ. 18 no.11:61 N '63. (MIRA 16:12)

ADOL'F, Viktor Aleksandrovich; LEBEDENSKIY, G.V.; MEYLIKHOV, M.M.;
MEKSIN, M.A.; SEPITYY, V.T.; MEDVEDEV, I.N., inzhener, redaktor;
KOBILIAKOV, L.M., redaktor; PERESYKINA, Z.D., tekhnicheskij
redaktor; BALLOD, A.I., tekhnicheskij redaktor

[Disassembling and assembling KhtZ-7 tractors] Razborka i sborka
traktora KhtZ-7. Pod red. I.N. Medvedeva. Moskva, Gos. izd-vo
selkhoz. lit-ry, 1956. 194 p.
(Tractors) (MLRA 9:7)

ADOL'F, Viktor Aleksandrovich, inzh.; LEBEDINSKIY, G.V., inzh.; MEE-
SIN, M.A., inzh.; NOVITSKIY, I.V., inzh.; PESTRIAKOV, A.I., red.;
GUREVICH, M.M., tekhn.red.

[DSSh-14 self-propelled chassis] Samokhodnoe shassi DSSh-14.
Pod red. G.V. Lebedinskogo. Moskva, Gos.ind-vo sel'khoz.lit-
ry, 1959. 181 p.

(MIRA 14:5)

1. Khar'kovskiy traktorosborochnyy zavod (for Adol'f, Lebedin-
skiy, Meksin, Novitskiy)

(Tractors)

CELLER, I.; MAMESIM, S.

Conference on semiconductor rectifiers. Radio no.6:57 Je '56.
(MLRA 9:8)

(Electric current rectifiers)

FRISHMAN, M.P.; SHCHEPKOVSKAYA, Ye.V. [deceased]; NIKOL'SKAYA, Ye.P.; MARINA,
A.I.; MEKSTINA, B.I.; RUDAYEV, M.I.

Syphilis of the internal organs and of the nervous system in Kharkov
during the past 8 years (1955-1962). Vest. derm. i ven. 38 no.6:81-
85 Je '64.
(MIRA 18:6)

1. Ukrainskiy nauchno-issledovatel'skiy kozhno-venerologicheskiy
institut (dir. - dotsent A.I.Pyatikop), Khar'kov.

Meksina, M.M.
KRASIL'NIKOV, N.A.; KORENYAKO, A.I.; MEKSINA, M.M.; VALEDINSKAYA, L.K.
[deceased]; VESELOV, N.M.

Culture of *Actinomyces* No.111, *Actinomyces luridus* nov.sp., producer
of the antiviral antibiotic luridin [with summary in English].
Mikrobiologija 26 no.5:558-564 S-0 '57. (MIRA 10:12)

1. Institut mikrobiologii AN SSSR i Vsesoyuznyy nauchno-issledovatel'-
skiy institut antibiotikov, Moskva.

(ANTIBIOTICS,
luridin, prod. by *Actinomyces luridus* & antiviral
properties (Rus))
(ACTINOMYCES,
luridus, prod. of antibiotic luridin (Rus))

FEKUZ, Y.

Accounting and Controlling the expenditure of Material in Production Operations. Leka Promishlenost (Light Industry), #10:9:Oct 54

GOTSKIY, M., kapitan dal'nego plavaniya; KONEV, B., kapitan dal'nego plavaniya;
LYUTIKOV, V., kapitan dal'nego plavaniya; GRISHIN, B., kapitan dal'nego
plavaniya; MEL', A., kapitan dal'nego plavaniya

Do seamen need such manuals? Mor.flot 19 no.9:44-46 S '59.
(MIRA 12:11)
(Ship handling)

MEL', D.(Ust'-Kamenogorsk, Vostochno-Kazakhstanskaya oblast').

Altai - Caucasus. IUn. nat. no.9:13 § '57.
(Fruit culture)

(MLRA 10:9)

VUKSIC, Lj.; ARSIC, B.; MEL, D.; MORELJ, M.; GERBEC, M.; MILOVANOVIC, M.;
STOJKOVIC, Lj.; MIRKOVIC, M.; MILIVOJEVIC, M.

R.
Isolation of *Coxiella burnetti* from stable dust. Higijena,
Beogr. 8 no.4:240-245 1956.

C V TIK
1. Katedra za Higijenu i epidemiologiju VMA. Virusolosko
odeljenje Higijenskog instituta NRS, Beograd.

(COXEILLA BURNETTI,
isolation from stable dust (Ser))

(DUST,
isolation of *Coxiella burnetti* from stable dust (Ser))

MORELJ, Marijan; GERBIC, Miro; VUKSTIC, Ljubomir; MEL, David

f fever; isolation of *Coxiella burnetii* from deer tick, *Ixodes*, san. progl., Beogr. 14 Jn. 5:27-260 May 12.

L. Katedra za higijenu i sanitetologiju VMA S. i mikrobiol. i mikrobioloski institut,

(FEVER, microbiol.)

isolation of *Coxiella burnetii* from deer tick, *Ixodes*, (SMEG) same)

MEL, David, sanitetski potpukovnik dr; TERZIN, Aleksandar, profesor dr;
VUKSIC, Ljubomir, sanitetski pukovnik profesor; STANKOVIC, N.A.,
visi zdr. tehnicar

Phagocytic response in the laboratory diagnosis of bacterial infection.
Vojnosanit. pregl. 19 no.12:837-845 D '62.

1. Vojnomedicinska Akademija u Beogradu Epidemiolski institut Medicinski
Fakultet u Sarajevu.

(PHAGOCYTOSIS) (INFECTION)

MEL, David, sanitetski potpukovnik dr

Up to date experiences with the production of an anti-dysenterial
vaccine. (Preliminary communication). Vojnosanit. pregl. 19 no.5:
353-356 My '62.

1. Vojnomedicinska akademija u Beogradu, higijenski zavod --
Epidemiolski institut.
(DYSENTERY BACILLARY) (VACCINES)

5

MEL, David, sanitetski pukovnik dr.; STANKOVIC, Nikola, tehnicki saradnik
visi zdravstveni tehnicar

Study on the streptomycin-dependent *Shigella flexneri* strain for
oral vaccination against dysentery. Vojnosanit. pregl. 22 no.6:
381-387 Je '65.

1. Vojnomedicinska akademija u Beogradu, Rigijenski zavod,
Epidemiolski institut.

ARSIC, Bogoljub, sanitetski pukovnik docent dr.; MEL, David, sanitetski pukovnik dr.; RADOVANOVIC, Miroslav, sanitetski kapetan dr.; NIKOLIC, Bozidar, sanitetski potpukovnik dr.; ZISOVSKI, Angel, sanitetski potpukovnik dr.; SOKOLOVSKI, Borivoje, sanitetski kapetan I klase dr.; DORDEVIC, Dusan, sanitetski major dr.; STANKOVIC, Nikola, visi zdravstveni tehnicar; MANOJLOVIC, Borislav, sanitetski kapetan I klase; MIJUSKOVIC, Punisa, sanitetski kapetan I klase dr.

Treatment of dysentery with various doses of terramycin.
Vojnosanit. pregl. 22 no.6:388-393 Je '65.

1. Vojnomedicinska akademija u Beogradu, Higijenski zavod, Epidemioloski institut, Higijensko-epidemioloski odred Skoplje; Armijaska bolnica u Skoplju, Zarazno odeljenje; Vojnomedicinska akademija u Beogradu, Klinika za zarazne bolesti.

ARSIC, Bogoljub, sanitetski pukovnik doc. dr.; ZISOVSKI, Angel, sanitetski potpukovnik dr.; MIJUSKOVIC, Punisa, sanitetski kapetan I klase dr.; RADOVANOVIC, Miroslav, sanitetski kapetan dr.; NIKOLIC, Bozidar, sanitetski potpukovnik dr.; SOKOLOVSKI, Borivoje, sanitetski kapetan I klase dr.; DORDEVIC, Dusan, sanitetski major dr.; MEL, David, sanitetski pukovnik dr.; JOKOVIC, Bozidar, sanitetski kapetan dr.; MILUTINOVIC, Milan, kapetan dr.

Clinical picture of acute bacillary dysentery in soldiers of the Yugoslav National Army. Vojnosanit. pregl. 22 no.6:394-397 Je '65.

1. Zarazno odeljenje, Higijensko-epidemiolski odred u Skoplju, Vojnomedicinska akademija u Beogradu, Klinika za zarazne bolesti.

47-186
N.Y.L. 451-3155555-565
Mol' N. I. O meteorologicheskikh issledovaniyah vokrug stepenitogo lesego po perekroju pod vedeniem V. V. Dokuchaeva. [Meteorological investigations of the special expedition of the Forestry Department under the leadership of V. V. Dokuchayev (1872-1897).] Voprosy Geograficheskoy Obshchiny, fascia, 8(18)291-299, May-June 1951. DLC. The views of Dokuchayev on the importance of microclimatic observations in the study of forest, steppes and plant ecology are presented. The organization of microclimatic stations, their problem and the instructions which were worked out by Dokuchayev on the expedition sent out to investigate the causes of the great drought of 1891 in Russia is described. The conclusions of Dokuchayev on the climate in steppes and forests are summarized. Subj. Headings: 1. Microclimatological research 2. Applied climatology 3. Plant ecology 4. Dokuchayev, V. V. S. U.S.S.R. - I.L.D. 451-3155555-565

USSR/Cultivated Plants - General Problems.

M-1

Abs Jour : Ref Zhur - Biol., No 7, 1958, 29635

Author : Mel', M.I.

Inst :

Title : V.V. Dokuchayev's Research on Snow Utilization and Its Significance Today.

Orig Pub : V sb.: Vorp. ispol'zovaniya snega i bor'ba so snezh. zanosami i lavinami. M., 1956, 56-65.

Abstract : No abstract.

Card 1/1

SAPOZHNIKOVA, S.A.; MEL', M.I.; SMIRNOVA, V.A.

Agricultural and climatic conditions for the cultivation of corn
in the U.S.S.R. Trudy NIIAK no.2:5-77 '57. (MIRA 11:9)
(Crops and climate) (Corn (Maize))

SAPOZHNIKOVA, S.A.; MEL', M.I.; SMIRNOVA, V.A.; NIKIFONOVA, A.T.

Evaluating the climatic and agricultural resources of the U.S.S.R.
Trudy NIIAK no.2:78-115 '57. (MIRA 11:9)
(Crops and climate)

MEL', M.I.

Studying the relationship between the productivity of spring wheat
and climatic conditions of the place of cultivation. Trudy NIILAK
no.6:52-63 '58. (MIRA 12:11)
(Crops and climate) (Wheat)

MEL', M.I.

P.I. Koloskov; on his 70th birthday and 50th year of his scientific
work. Izv.Vses.geog.ob-va 90 no.5:467--468 S-O '58.
(MIRA 11:11)

(Koloskov, Pavel Ivanovich, 1888-)

MEL', M.I.

Protein content of spring wheat in different geographical
regions of the U.S.S.R. and its relation to climatic conditions.
Trudy NIIAK no.7:76-84 '59. (MIRA 13:4)
(Wheat) (Proteins) (Crops and climate)

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001033320018-0

MEL', P.K.; GORSHKOVA, A.M.

Cellulose of bog plants. Trudy IGI 21:144-158 '63.
(MIRA 16:11)

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001033320018-0"

MELACERINOS, A.

Local varieties of autumn Albanian wheat. p. 109. Vol. 5. No. 1, Jan. 1⁹⁵⁵.
Comunicarile.

Source: East European Accessions List (EEAL), Lc, Vol. 5, No. 3, March 1⁹⁵⁶

RUMANIA / CULTIVABLE Plants.- Grains.

Abs Jour : Ref Zhur - Biol., No 3, 1958, 10707

Author : Pryadchenku, A., Yazadzhi, A., Velikan, V., Dregich, L.,
Bretan, I., Gologan, I., Dalas, V., Melakrinos, A.,
Boldye, Ye., Chobotaru, V., Miklyya, K.

Inst : Rumanian Academy.

Title : The Best Sorts of Spring Wheat for the Rumanian People's
Republic.

Orig Pub : Biol., zh. Akad RNR, 1956, 1, No 1, 147-206.

Abstract : The results are given of the comparative testing of spring
wheat varieties conducted in 1949-1952 on six experimental
bases, situated in different productive zones of the Russian
People's Republic.

RUMANIA/Cultivated Plants. Grains.

Abs Jour : Ref Zhur-Biol., No 15, 1958, 68078

Author : Bryadchenku, Al., Melakrinos, A., Enescu, C.,
Boldea, E.

Inst : Rumanian AS.

Title : Local Winter Hard Wheat.

Orig Pub : Biol. zh. Akad. RNR, 1956, 1, No 2, 175-185

Abstract : The semi-early variety has a vegetation period of 250-270 days. In years of considerable precipitation, it is susceptible to tumbling down; it is very resistant to smut, and is little affected by brown rust. The morphological characteristics of this variety are given. In 1953 and 1954, winter hard wheat was tested by comparing it in parallel sowings with winter

Card : 1/2

MELACRINOS, A.; PRIADCENCU, A.

New lines of spring wheat of the Triticum durum species. p. 683.
Academia Republicii Populare Romine. COMUNICARILE. Bucuresti.
Vol. 6, no. 5, May 1956.

SOURCE: East European Accessions List (EEAL) Library of Congress.
Vol. 5, no. 9, Sept. 1955

MELACRINO.S., A.

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|------------|---|---|---|
| Country | : | Romania | M |
| CATEGORY | : | Cultivated Plants. Grains. | |
| ASS. JOUR. | : | RZBiol., No. 21, 1958, No. 95908 | |
| AUTHOR | : | Priadoenou, AL.; <u>Melacrinou, A.</u> ; Enescu, S.; * | |
| INST. | : | Academy of Sciences RPR | |
| TITLE | : | Preliminary Results of Introducing "Arnăut de Toamnă", Winter Arnautka Wheat, into Cultivation | |
| ORIG. PUB. | : | Bul. științ. Acad. RPR. Sec. biol. și științe agric., 1956, 8, No. 4, 817-825 | |
| ABSTRACT | : | On the basis of the findings of variety tests made at the experimental stations in Rumania winter Arnautka (Tr. durum v. Coerulescens) which yields a large grain with high protein content is recommended for cultivation in Oltenia and Batata. | |

* Boldea, El.

CARD: 1/1

USSR/Cultivated Plants - Grains

M

Abs Jour : Ref Zhur Biol., No 18, 1958, 82262

present time Gor'kovchanka is being tested in 16 oblasts
of the non-chernozem belt. -- N.Ta. Vorontsova

Card 2/2

MELADZE, F.G.

Effect of the properties of fine-grained concrete on the
strength of reinforced concrete. Soob. AN Gruz.SSR 33 no.3:
605-612 Mr '64 (MIRA 17:8)

1. Tbilisskiy institut sooruzheniy i gidroenergetiki imeni
A.V. Vintera. Predstavлено akademikom K.S. Zavriyevym.

MELADZE, G.

Genesis of the radon sources at Merisi village (Adzhar A.S.S.R.)
Trudy Inst. geofiz. AN Gruz. SSR 22:181-190 '64.
(MIRA 18:12)

MELADZE, G.G.

Temperature of the active surface of the tea leaf. Meteor. i
gidrol. no.1:34-36 Ja '61. (MIRA 14:1)
(Plant temperature) (Tea)

MELADZE, G.G.

Dependence of the number of tea pluckings on the accumulated temperature
and the amount of precipitation. Meteor. i gidrol. no.3:33-35 Mr
'61. (MIRA 14:2)
(Tea) (Meteorology, Agricultural)

MELADZE, G.G.

Number of pluckings of tea depending on climatic conditions.
Trudy ZakNIGMI no.18:91-94 '65.
(MIRA 19:1)

MELADZE, G.K.

Radiometric characteristics of fresh and mineral waters in eastern
Georgia. Trudy Inst. geofiz. AN Gruz. SSR 19:171-176 '6C.
(MIRA 14:9)
(Georgia--Springs) (Radioactive substances)

CHKHENKELI, Sh. M.; MELADZE, G. K.

Genesis of the radioactivity of water in the Alazan Depression.
Trudy Inst. geofiz. AN Gruz. SSR 20:245-249 '62.
(MIRA 16:1)

(Georgia—Water, Underground--Radioactive
properties)

METADZE, G.K.

New representative of *Givatherilinae* from eastern Georgia.
Trudy Inst. paleobiol. AN Cruz, S.R. 7:51-65 '62.
(MIRA 17:7)

MELADZE, G.K.

Palebiological study of Sivatherines. Soob. AN Cruz.SSR
33 no.3:597-600 Mr '64 (MIRA 17:8)

MELADZE, G.K.

Genesis of the radon sources of the Kham crystalline massif.
Trudy Inst. geofiz. AN Gruz. SSR 21:189-193 '63.

(MIRA 18:12)

CHERENKELI, Sh.M.; VELADZE, G.K.

Genesis of the elevated radioactivity of some sources in
Georgia. Trudy Inst. geofiz. AN Gruz. SSR 21:195-201 '63.
(MIRA 18:12)

ADAMIYA, SH.A.; DVOBNIKOV, N.M.; MATSEPKHARIVILI, P.I.; MULUMA, G.K.

Age of the "Basleti band". Jan. 1973. Tbilisi, Georgia
64-73-165

MELADZE, R. D.

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1768
AUTHOR KVARCCHAVA, I. F., BONDARENKO, V. V., MELADZE, R. D., SULADZE, K. V.
TITLE The Electric Explosion of Wires in the Vacuum.
PERIODICAL Zurn.eksp.i teor.fis, 31, fasc.5, 737-744 (1956)
Issued: 1 / 1957

The present work contains a report on the results obtained by tests concerning the explosion of wires in a vacuum of $\sim 10^{-5}$ mm column of water in a sufficiently large chamber. A further reduction of pressure exercised no influence on the observed phenomena.

Test methods and results: For the electric scheme of the test order see V. V. BONDARENKO et al. Zurn.eksp.i teor.fis, 28, 191 (1955). The section through a chamber is described by a drawing. Tests were carried out mainly with copper wires. The entire capacity of the condenser pile was 4μ F and the inductivity of the circuit of the explosion was 1,2 microhenry. For the investigation of the condensation of the condensed products the wire was surrounded by a coaxial aluminium screen. The entire explosion was photographed in the light of the discharge itself in a position vertical to the axis of the wire; the photographs obtained are attached. The condensed product has a stripe-like structure and height along the entire length of the screen. The stripes are vertical to the wire and the height of the condensed substance is nearly equal to the length of the wire. This points in the direction of a radial distribution of the vapors of the wire. The height of the condensed substance has two unequal maxima and two minima. The products of the electric explosion extend, indepen-

Zurn.eksp.i teor.fis, 31, fasc.5, 737-744 (1956) CARD 2 / 2 PA - 1768

dent of the original shape of the wire, vertical to every point of the surface. With respect to the direction of the extension of the products of the explosion this reminds us of the ordinary explosion of very elongated charges. Under the conditions investigated only the front of the vapor flow moves in the high vacuum, whereas the remaining parts of the flow move in a deteriorated vacuum. Nevertheless, the condensation products remain within strict limits and give a clear illustration of the strata-like structure of the vapor flows. This is possible only in the case of high radial velocities of the vapor flows. These velocities amounted to $\sim 2 \cdot 10^5$ cm/sec on the occasion of the tests under investigation. If the diameter of the wire is reduced, the radial dimensions of the luminescent channels are reduced as well. According to the authors' opinion, the luminescent channels are caused mainly by the radial motion of the vapors of the wire in the strong magnetic field of the current. The channels are produced and exist only within the first half-period of amperage. Further details are discussed. The causes of the phenomena described are discussed, but at present they are still only a rough approximated description of reality.

INSTITUTION:

24(3)

AUTHORS: Kvartskhava, I. F., Bondarenko, V. V., SGV/56-35-4-12,52
Meladze, R. D., Suladze, K. V.

TITLE: Electric Explosion of Spiral Wires in Vacuum
(Elektricheskiy vzryv spiral'nykh provolok v vakumme)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958,
Vol 35, Nr 4, pp 911-916 (USSR)

ABSTRACT: In two earlier papers the authors already investigated electric wire explosions in a vacuum (Refs 1, 2). The investigation of the phenomena of luminescence accompanying the explosion was carried out photographically; the experimental scheme used has already been described (Ref 2). For the wire explosion a battery condenser with a capacity of 4.8 μ F and a working voltage of 50 kV was used. In the present paper only the results of investigations are given, while as to the investigations themselves references 1 and 2 are mentioned. Results are discussed on the basis of the reproduced photographs. Figure 1 shows 2 photos of explosions of cylindrical copper wire spirals and 2 of sinusoidally curved wires. Figure 2 shows the photo-

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Electric Explosion of Spiral Wires in Vacuum

SOV/56-35-4-12/52

graph of an explosion on a copper wire ring, of an explosion on a straight Cu-Al wire, and one of mirror scanning. All data concerning these photographs are given. It was found that, in the case of wire explosions in a vacuum, also glow effects are observed besides the phenomenon of the current tubes. This phenomenon is a consequence of the motion of explosion products through the magnetic field of the current (during the discharge

an additional electric field $\vec{E} = \frac{1}{c} [\vec{v} \times \vec{H}]$ is formed, where

\vec{v} denotes the velocity of the explosion products in the \vec{H} -field, and c the velocity of light in the vacuum); the former effect is considered to be a consequence of reciprocal interaction among the currents of the explosion products. The velocity of the explosion front is determined by scanning the explosion with a mirror as amounting to 10^6 cm/sec. It is also found that during the very short time of the explosion, thermal insulation of the plasma is possible by means of a strong magnetic field. In conclusion, the authors endeavor to give a

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Electric Explosion of Spiral Wires in Vacuum

SOV/56-35-4-12/52

qualitative explanation of the phenomena observed.
There are 3 figures and 8 Soviet references.

SUBMITTED: May 10, 1958

Card 3/3

Meladze, R.D.
28(1).

SOV/19-59-3-283/306

AUTHORS: Gogodze, G.S., Bezhakov, A.A., Meladze, R.D., Kodzis,
V.K. and Mgaloblishvili, A.I.

TITLE: An Automatic Machine for Labelling Bottles and
Similar Vessels

PERIODICAL: Syulleten' izobreteniy, 1959, Nr 3, p 72 (USSR)

ABSTRACT: Class 81b, l. Nr 117839 (596186 of 31 March 1958).
1) This machine is for labelling bottles and similar vessels, moved on a conveyer, and has a supporting board covered with rubber, and a short conveyer installed along the sides of the conveyer so as to impart reciprocal motion to the bottles. A container filled with labels is mounted in the path of the supporting board. To apply the glue to the uppermost label in the container in strips not extending to the edge of the label, so that the vessel and the supporting board are not brought into contact with the glue, the short conveyer is made of chains, and carries pairs of rubber-covered

Card 1/2

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An Automatic Machine for Labelling Bottles and Similar Vessels

rollers on it for rolling the bottles along the rubber-covered board. Spring-loaded gluing rollers are installed between the roller pairs and are covered with glue every time the glue container is rolled along the belt. The gluing rollers operate in accordance with a copying device on a certain section of the upper label waiting in the container. The label container is equipped with a catch which is released every time the oncoming bottle presses against a plate installed in the path of the supporting board in front of the label container. 2) A swivel stamp is mounted in the path of the supporting board for printing the appropriate text upon the label. 3) A worm screw is installed in the unit for feeding the bottles into the gap between the supporting board and the conveyor at intervals corresponding to the position of the roller pairs rolling the bottles.

Card 2/2

2.3150,24.2120

713
387/1-1-1-1

AUTHORS: Kvartskhava, L. P., Rozhdestvenskaya, N. D., Sviridov, Z. V.

TITLE: Investigation on Electrical Breakdown and Ionization in Plasma

PERIODICAL: Zhurnal tehnicheskoy fiziki, Izd. Vses. Akad. Nauk, pp 289-296 (USSR)

ABSTRACT: The authors worked with two types of accelerated DC, the coaxial and the induction accelerators. In the first case, the plasma gap is built in a distance between two coaxial electrodes and is ionized by the azimuthal field of the discharge current. In the second case, the clot is formed in an electrodeless discharge. The discharge and acceleration of α_1 ions of an iron atom in a magnetic field quickly vanishes in time. The results are shown on Fig. 1.

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Investigations on Electrodynamical Acceleration
of Plasma

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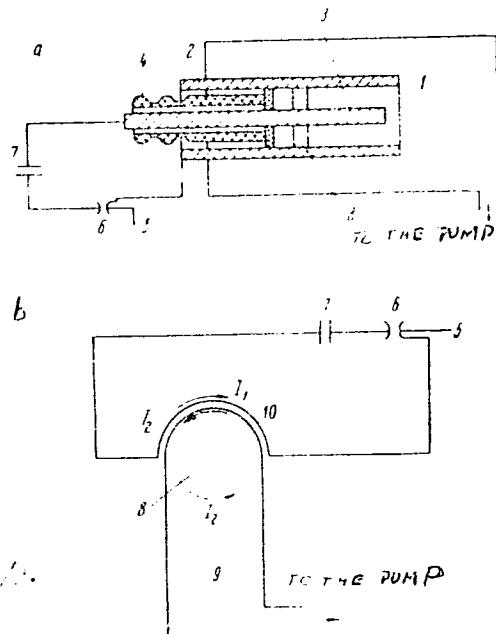


Fig. 1.
See caption on Chart B.

Chart 2/9

Investigation of the Electrical Conductivity of Plasma

Fig. 11. A photograph of the same field as Fig. 10, showing the effect of the removal of the topsoil. The original surface was at the level of the top of the ploughed furrow. The new surface is at the level of the top of the ploughed furrow.

19. The following table shows the number of hours worked by each of the 100 workers in the firm.

and the like, the number of which is now about 1000, and the
whole collection is now in the British Museum.

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Journal of Health Politics, Policy and Law, Vol. 35, No. 3, June 2010
DOI 10.1215/03616878-35-3 © 2010 by The University of Chicago

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and the other two were in the same condition as the first. The last was a small, dark brown, smooth-skinned, well-filled specimen, which I think must have been a female. It was 10 mm. long, and had a very short, thick tail. The dorsal fin was situated near the head, and the pectoral fins were also rather close together. The scales were 30, and the gill-slits 6. The body was covered with a thin skin, which was easily rubbed off.

Investigations on Electrodynamic Acceleration
of Plasma

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of the apparatus parallel (longitudinal pictures) and perpendicular (transverse pictures) to the direction of propagation of the clots. The authors found that variations in the size of the coaxial device did not alter appreciably the observed processes. Analysing the longitudinal pictures, the authors found that after a leading strong plasma clot, starting during the first half period of the current, follow many small clots of lower density and higher velocities. The beginning velocities of the leading clot are inversely proportional to the initial pressure of the gas, while the final velocities are not too sensitive to the initial pressure. At lower initial pressures the leading clot was missing, and the authors deduced from the pictures that in the coaxial accelerator three kinds of clots are obtained: the leading clots, which carry almost all the gas out of the coaxial region, and two kinds of small clots originating at the beginning or at the end of the coaxial, depending on the ex-

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Investigations on Electrodynamic Acceleration
of Plasma

778-3
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perimental conditions. The latter case can be observed also under the Bostick plasma accelerator. The authors present also transverse photographs of the induction accelerator and longitudinal pictures of opposing motion and "collisions" of accelerated clots, emerging from coaxials facing one another. One sees that induction accelerator generates only one kind of clot, and they are most compact at low gas pressures. After leaving the strong magnetic field region, a clict generated during the later parts of the half periods of the current divides into two parts, one of which slows down appreciably, while the other continues without change in velocity. In this type of accelerator, clots are not capable of effectively removing the gas from the discharge region. In the coaxial device, the leading clot did not move faster than 10^7 m/sec, while the small clict attained velocities of $4 \cdot 10^7$ m/sec. Maximum current

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Investigations on Electrodynamical Acceleration
of Plasma

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amplitude during those tests was 30 ka, while a later increase to 350 ka led only to ion currents in number of the small shots without increasing their velocity. Induction accelerator yielded velocities up to $6 \cdot 10^6$ m/sec. Total mass of the particles $U = 45$ kV was 10^{-11} gm if in the coaxial device and of one order of magnitude lower for the induction accelerator. The authors conclude that the coaxial accelerator is more effective in obtaining fast fluxes of matter than the magnetic one. The authors obtain additional information by analysing the transverse pictures and those of the induction accelerator and opposing coaxial accelerators. To compare the experimental results for the electron velocity with theoretical expectations, the authors derive the average average velocity equation:

$$v = \frac{I_0}{\pi} = \frac{8\pi H'}{HS}$$

Card 7, 3

Investigations on Electromagnetic Acceleration
of Plasma

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where d_0 is distance travelled by the filaments during the time t_0 , I discharge current, B positive acceleration potential, H average value of the accelerating field, and S cross-sectional surface of the channel. The optimal values of the parameters $I = 80$ am., $V = 20,000$ Oersted, and $S \approx 1.5$ cm², ω comes out at 10⁴ cm/sec, which agrees satisfactorily with the measured values. The authors describe also the mechanism of formation of small-sized clots. Those obtained inside the coaxial are probably due to the fact that the electric strength lasts a finite time of 10⁻⁷ sec necessary to build up the strong current discharge against the counter emf due to the motion of the clot. Those originating at the outer end of the electrodes are due to the fact that for some reason the main discharge current fails to the end of the electrode producing a flow of "sparks" which becomes pinched by the magnetic field of 100 m. oersted. This pinching process is characterized by a radius

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Investigations on Electromagnetic Acceleration
of Plasma

periodicity, and a series of small spots are obtained.
An analogous mechanism operates under the Bratnik
accelerating conditions. There are 3 figures, and
9 references. (Soviet, U.S.) The 11th report in S
references are: W. Rayle - IRE Trans. P. M. 1, 3
N°2, 42-45, 1959. R. F. Post - Second United
Nations International Conference on the Peaceful
Uses of Atomic Energy, Geneva, Paper 10-P-372, 1958.
L. Marshall - Second United Nations International
Conference on the Peaceful Uses of Atomic Energy,
Geneva, Paper 10-P-375, 1958. A. J. Kihl - Phys
Rev., 107 N°2, 345-350, 1957. W. H. Bratnik
Phys. Rev., 404, 1957.

ASSOCIATION None given

SUBMITTED October 24, 1959

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| L 28476-66 | EPF(n)-2/EMT(1)/EMT(m)/ETC(f)/EWG(m)/T | IJP(c) | AT/DS |
| ACC NR: | AP6013135 | SOURCE CODE: | UR/0057/66/036/004/0755/0759 |
| AUTHOR: | <u>Kvartskhava, I.F.; Matveyev, Yu.V.; Meladze, R.D.; Khautiyev, E.Yu.</u> | | |
| ORG: | none | | |
| TITLE: On possible reasons for the influence of electrode polarity on acceleration of plasma in a rail accelerator | | | |
| SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 4, 1966, 755-759 | | | |
| TOPIC TAGS: plasma accelerator, plasma acceleration, rail accelerator, cathode spot, arc discharge, plasma pinch | | | |
| ABSTRACT: It is known that the anode end of the current sheet in a rail accelerator moves with greater acceleration than does the cathode end. It is argued that this phenomenon is due to behavior of the plasma associated with the formation of electrode spots. Examination of used electrodes has shown that both cathode and anode spots occur in rail accelerators, and that the traces of the cathode spots are deeper and less continuous than those of the anode spots. It is argued that under conditions in which the plasma electrons are magnetized the concentration of current in the vicinity of a cathode spot leads to explosive ejection of a jet of plasma from the region of the electrode. The ion motions in such a jet issuing from the cathode arc in the direction opposite to that of the discharge current in the sheet, and the Lorentz force on these moving ions thus tends to retard the motion of the cathode end of the | | | |
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accelerating plasmoid. Jets issuing from the anode, on the other hand, are not only less intense, but the ions in them move in the direction of the current and thus tend to enhance the acceleration of the anode end of the plasmoid. The discussed mechanism is also relevant to the motion of cathode spots in an arc discharge and is apparently associated with the end effects in a linear pinched discharge noted by A. Folkierski, P.G. Frayne, and B. Latham (Rept. No. CN-10/48A, Salzburg, 1961). Orig. art. has: 2 figures.

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SUB CODE: 20 SUBM DATE: 22Oct65 ORIG. REF: 005 OTH REF: 008

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